

Amendment to Claims

1 (original). An article holder comprising:

a first body surrounding a first vortex chamber and having gas inlet and outlet passages terminating at the first vortex chamber; and

a second body surrounding a second vortex chamber and having gas inlet and outlet passages terminating at the second vortex chamber;

wherein a combination of the first vortex chamber with all of the gas inlet and outlet passages terminating at the first vortex chamber is not geometrically identical to a combination of the second vortex chamber with all of the gas inlet and outlet passages terminating at the second vortex chamber.

2 (original). The article holder of Claim 1 wherein all of the one or more gas inlets terminating at the first vortex chamber have a larger combined cross-sectional area than all of the one or more gas inlets terminating at the second vortex chamber.

3 (original). The article holder of Claim 2 in combination with an apparatus for rotating the article holder around at least one axis, wherein a minimum distance between said axis and the first vortex chamber is smaller than a minimum distance between said axis and the second vortex chamber.

4 (original). The article holder of Claim 1 wherein the first gas vortex chamber has more gas inlets than the second gas vortex chamber.

5 (original). The article holder of Claim 4 in combination with an apparatus for rotating the article holder around at least one axis, wherein a minimum distance between said axis and the first vortex chamber is smaller than a minimum distance between said axis and the second vortex chamber.

6 (original). The article holder of Claim 1 wherein the first vortex chamber has a tangential gas inlet for creating a gas vortex and has a non-tangential gas inlet, and the second vortex chamber has a tangential gas inlet but does not have a non-tangential gas inlet.

7 (original). The article holder of Claim 6 in combination with an apparatus for rotating the article holder around at least one axis, wherein a minimum distance between said axis and the first vortex chamber is smaller than a minimum distance between said axis and the second vortex chamber.

8 (original). An article holder having a surface which is to face an article held in the holder, the article holder comprising a plurality of vortex chucks having outlets in said surface, wherein the surface has a first portion having one or more outlets therein and a second portion having one or more outlets therein, the first and second portions have equal areas, and the first portion has more outlets per unit area than the second portion.

9 (original). The article holder of Claim 8 in combination with an apparatus for rotating the article holder around at least one axis, wherein a minimum distance between said axis and the first portion of said surface is smaller than a minimum distance between said axis and the second portion.

10 (original). An article holder having vortex chucks which are to emit gas vortices to hold an article, wherein all of the vortex chucks which are to emit vortices to hold an article have outlets in a surface which is to be face the article, wherein the surface consists of a first portion and a second portion, wherein the first portion has at least some of its area occupied by at least a part of a vortex chuck outlet, and the second portion also has at least some of its area occupied by at least a part of a vortex chuck outlet, wherein the first portion has a larger percentage of its area occupied by the vortex chuck outlets than the second portion.

11 (original). The article holder of Claim 10 in combination with an angle drive having an arm attached to the article holder and having an axis of rotation, wherein all of the first portion of said surface lies closer to said axis than all of the second portion.

12 (original). The article holder of Claim 10 wherein the first and second portions have equal areas.

13-17 (canceled).

18 (currently amended). An apparatus comprising an article holder comprising one or more first vortex chambers to be positioned opposite to a first portion of the article, and one or more second vortex chambers to be positioned opposite to a second portion of the article, for greater cooling of ~~[[a]]~~ the first portion of the article by the one or more first vortex chambers than of ~~[[a]]~~ the second portion of the article by the one or more second vortex chambers.

19 (original). The apparatus of Claim 18 further comprising at least one angle drive for rotating the article holder around an axis, wherein a minimum distance between the axis and the one or more first vortex chambers is smaller than a minimum distance between the axis and the one or more second vortex chambers.

20 (currently amended). The apparatus of Claim 18 further comprising at least one drive for moving the article while the article is held in the holder so that at least a portion of the article directly opposite to the one or more ~~first~~ second vortex chambers moves faster than at least a portion of the article opposite to the one or more ~~second~~ first vortex chambers.

21 (previously presented). An apparatus comprising an article holder comprising one or more first vortex chucks and one or more second vortex chucks, the first and second vortex chucks being to emit gas vortices to hold an article, wherein during operation each of the one or more first vortex chucks emits more gas per unit of time than each of the one or more second vortex chucks.

22 (original). The apparatus of Claim 21 further comprising at least one angle drive for rotating the article holder around an axis, wherein a minimum distance between the axis and the one or more first vortex chucks is smaller than a minimum distance between the axis and the one or more second vortex chucks.

23 (currently amended). The apparatus of Claim 21 further comprising at least one drive for moving the article while the article is held in the holder so that at least a portion of the article directly opposite to the one or more ~~first~~ second vortex chucks moves faster than at least a portion of the article opposite to the one or more ~~second~~ first vortex chucks.

24 (previously presented). An apparatus comprising an article holder comprising:

one or more first vortex chambers;

one or more first gas sources for supplying gas to the one or more first vortex chambers;

one or more second vortex chambers; and

one or more second gas sources for supplying gas to the one or more second vortex chambers, the first and second gas sources being operable to cause a gas emitted from the one or more first vortex chambers to be colder than a gas emitted from the one or more second vortex chambers.

25 (original). The apparatus of Claim 24 further comprising at least one angle drive for rotating the holder around an axis, wherein a minimum distance between the axis and the one or more first vortex chambers is smaller than a minimum distance between the axis and the one or more second vortex chambers.

26 (currently amended). The apparatus of Claim 24 further comprising at least one drive for moving an article while the article is held in the holder so that at least a portion of the article directly opposite to the one or more ~~first~~ second vortex chambers moves faster than at least a portion of the article opposite to the one or more ~~second~~ first vortex chambers.

27 (previously presented). The apparatus of Claim 24 wherein the first and second gas sources are operable to supply a gas to the first vortex chambers at a greater pressure than to the second vortex chambers.

28 (previously presented). An apparatus comprising an article holder comprising:

one or more first vortex chambers;

one or more first gas sources for supplying gas to the one or more first vortex chambers;

one or more second vortex chambers; and

one or more second gas sources for supplying gas to the one or more second vortex chambers, the first and second gas sources being operable to supply a gas to the first vortex chambers at a greater pressure than to the second vortex chambers.

29 (previously presented). The apparatus of Claim 28 further comprising at least one angle drive for rotating the holder around an axis, wherein a minimum distance between the axis and the one or more first vortex chambers is smaller than a minimum distance between the axis and the one or more second vortex chambers.

30 (currently amended). The apparatus of Claim 28 further comprising at least one drive for moving an article while the article is held in the holder so that at least a portion of the article directly opposite to the one or more ~~first~~ second vortex chambers moves faster than at least a portion of the article opposite to the one or more ~~second~~ first vortex chambers.